

## Description

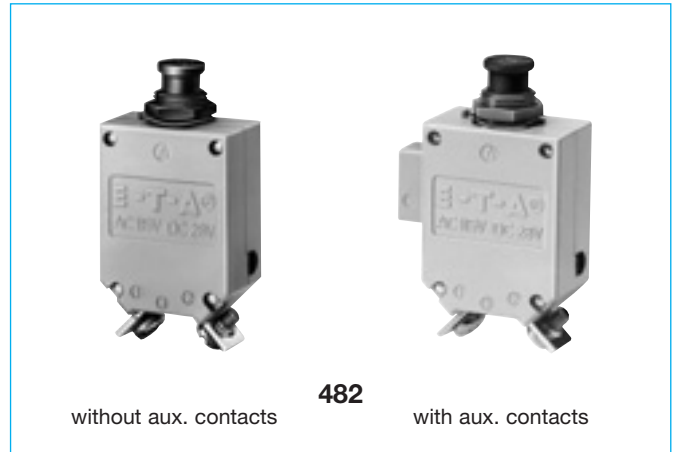
Single pole compact high performance thermal circuit breaker with tease-free, trip-free, snap action mechanism and push/pull on/off manual actuation (M-type TO CBE to EN 60934). An indicator band on the push button clearly shows the tripped/off position. Threadneck panel mounted in tracked vehicle and aircraft/general purpose versions, with optional auxiliary contacts.

## Typical applications

Extra low voltage wiring systems on all types of vehicles for land, sea and air, battery powered machines, process control.

## Ordering information

<b>Type No.</b>	482	single pole thermal circuit breaker
<b>Mounting</b>	<b>G</b>	threadneck panel mounting
<b>Threadneck design</b>	<b>1</b>	M 12x1 nickel plated
	<b>2</b>	M 12x1 black
	<b>3</b>	15/32-UN-2A black
	<b>6</b>	M12x1x8 black, without locating pin, push button marking as with 482-G2..
	<b>7</b>	M12x1x6,4 black, without locating pin, push button marking as with 482-G1..
<b>Hardware - washer for threadneck</b>	<b>0</b>	without hardware
	<b>1</b>	corrugated washer 12/15, fitted
	<b>2</b>	serrated lock washer 12/15, fitted (MS 35333-136)
	<b>3</b>	serrated lock washer 12/15, bulk shipped (MS 35333-136)
<b>Hardware - hex nut for threadneck</b>	<b>0</b>	without hardware
	<b>1</b>	hex nut M12x1 nickel plated
	<b>2</b>	hex nut M12x1 black
	<b>3</b>	hex nut 15/32-UN-2B black, fitted
	<b>4</b>	hex nut 15/32-UN-2B black, bulk shipped
<b>Terminal design (main terminals)</b>	<b>K1</b>	screw terminals with metric thread M4
	<b>J1</b>	screw terminals with inch thread 8-32-UNC-2B
	<b>R1</b>	round connector ø6
<b>Characteristic curve</b>	<b>M1</b>	thermal 1.15-1.4 I <sub>N</sub>
<b>Terminal screws</b>	<b>A</b>	flat head screw M4x6, ISO 1580, fitted
	<b>B</b>	Phillips screw 8-32UNC-2Ax6 (MS 51957-41), fitted
	<b>F</b>	Phillips screw M4x6 (ISO 7045), bulk shipped
	<b>H</b>	socket head cap screw M4x6 (DIN 7984), fitted
	<b>K</b>	hex screw 8-32UNC-3Ax7.6 fitted
<b>Terminal washers</b>	<b>0</b>	without lock washer
	<b>1</b>	lock washer DIN 137-B4, fitted
	<b>2</b>	lock washer 4.3, fitted, MS 35336-37
	<b>3</b>	lock washer 4.3, bulk shipped (MS 35 338-137)
	<b>5</b>	lock washer 4.3/9, fitted
	<b>6</b>	lock washer DIN 137-B4, bulk shipped
<b>Auxiliary contact</b>	<b>S0</b>	without auxiliary contacts
	<b>S1</b>	with auxiliary contact (NC)
	<b>S5</b>	with polarized aux. contact (NC)
<b>Barrier</b>	<b>(blank)</b>	without barrier
	<b>T</b>	with barrier, 31 mm wide
<b>Current ratings</b>		0.1...50 A
<b>482 - G 1 1 1 - K1 M1 - A 1 S1 . - 10 A</b> ordering example		



without aux. contacts

482

with aux. contacts

## Technical data

Voltage rating	AC 115 V (400 Hz); DC 28 V AC 230 (50/60 Hz) to special order	
Current rating range	0.1...50 A	
Auxiliary circuit	0.5 A, DC 28 V	
Typical life	10,000 operations mechanical 5,000 operations at I <sub>N</sub>	
Ambient temperature	-55...+75 °C (-67...+167 °F)	
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage 1.5 kV	pollution degree 3
Dielectric strength (IEC 60664 and 60664A)	test voltage operating area main to aux. circuit	AC 1,500 V AC 1,500 V
Insulation resistance	> 100 MΩ (DC 500 V)	
Interrupting capacity I <sub>cn</sub>	0.1...2.5 A 3...3.5 A 4...7 A 7.5...50 A 35...50 A	15 x I <sub>N</sub> 250 A DC / 150 A AC 500 A 6,000 A DC / 1,000 A AC with auxiliary contact: 3,000 A DC / 1,000 A AC
Interrupting capacity (UL 1077)	I <sub>N</sub> 0.1...50 A	U <sub>N</sub> DC 72 V 5000 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00	
Vibration	10 g (55-2000 Hz) ±0.76 mm (10-55 Hz) to VG 95210, sheet 19/IEC 60068-2-6, test Fc	
Shock	50 g (11 ms) to VG 95210, sheet 28/IEC 60068-2-27, test Ea	
Corrosion	48 hours at 5 % salt mist to VG 95210, sheet 2/IEC 60068-2-11, test Ka	
Humidity	240 hours at 95 % RH to VG 95210, sheet 7/IEC 60068-2-3, test C	
Explosion	to VG 95210, sheet 10/MIL-STD-202, meth. 109	
Mass	approx. 43 g without auxiliary contact approx. 46 g with auxiliary contact	

## Approvals

Authority	Voltage ratings	Current ratings
VG 95345 T21	DC 28 V	0.1...50 A
QPL, Canada	DC 28 V	0.5...35 A
UL	DC 72 V	0.1...50 A

Previous ordering codes:

482-N-MS = 482-G111-K1M1-A1S0-...A

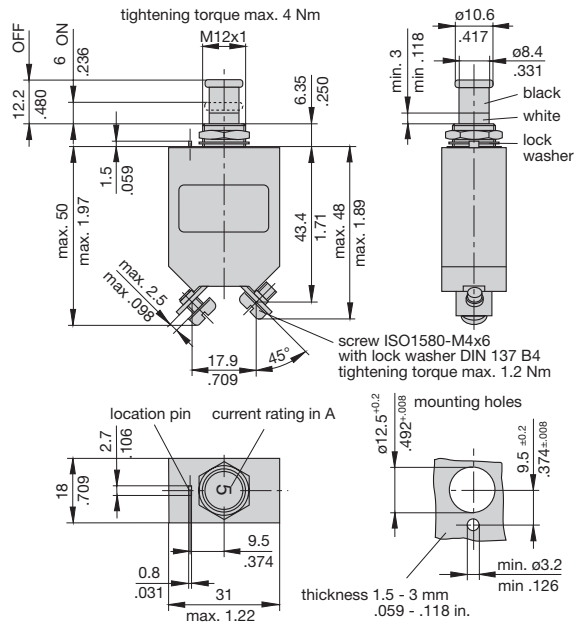
482-MS = 482-G212-K1M1-A1S0-...A

## Standard current ratings and typical volt drop values

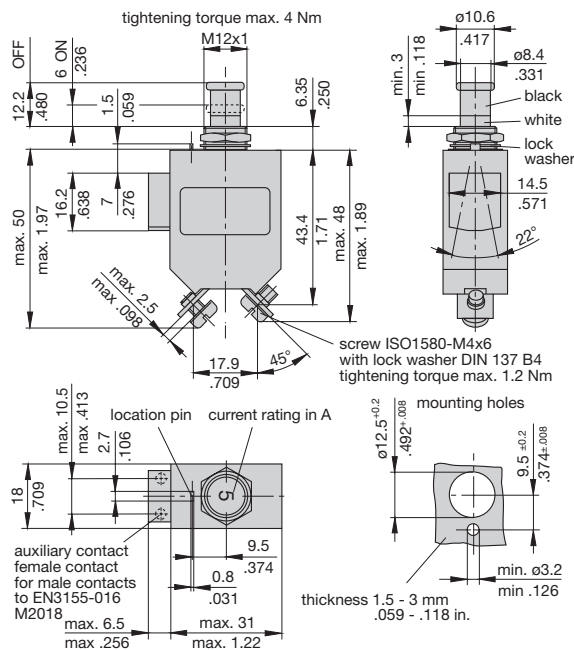
Current rating (A)	Volt drop (mV)	Current rating (A)	Volt drop (mV)
0.1	16 000	5	350
0.2	8 000	7.5	230
0.5	3 000	10	< 200
0.8	2 000	15	< 200
1	1 500	20	< 200
1.2	1 200	25	< 200
1.5	1 000	30	< 200
1.8	850	35	< 200
2	800	40	< 200
2.5	700	45	< 200
3	600	50	< 200
4	430		

## Dimensions 482-G1...

### 482-G111-K1M1-A1S0 (VG 95345 T21)

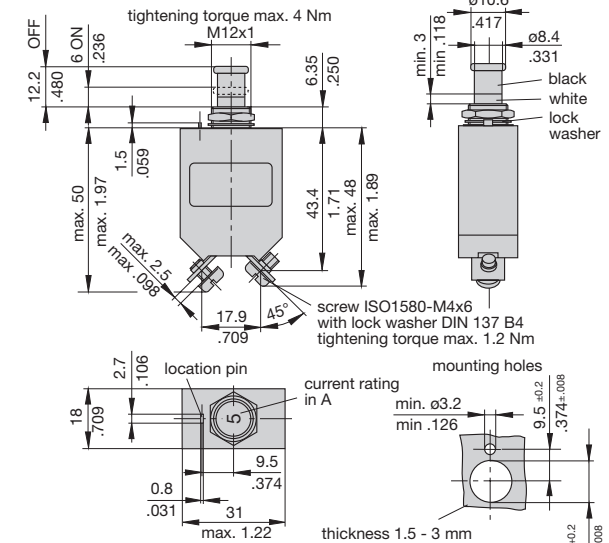


### 482-G111-K1M1-A1S1 (VG 95345 T21) 482-G111-K1M1-A1S5

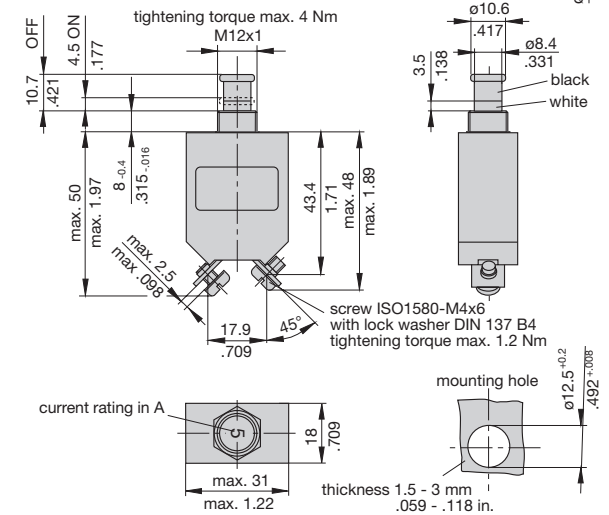


## Dimensions 482-G2../-G6../-G7...

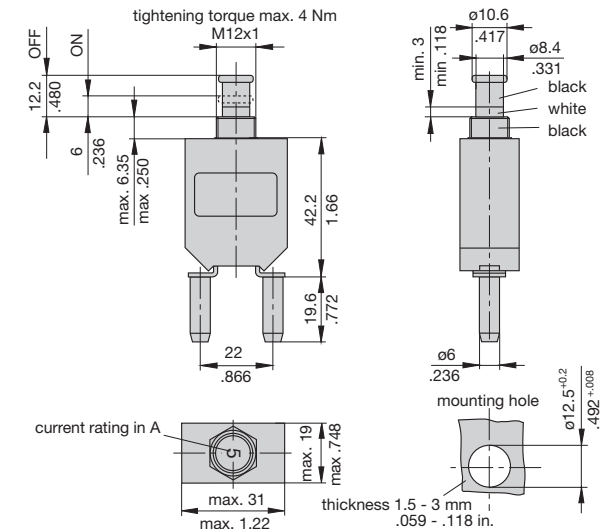
### 482-G212-K1M1-A1S0 (VG 95345 T21)



### 482-G600-K1M1-A1S0



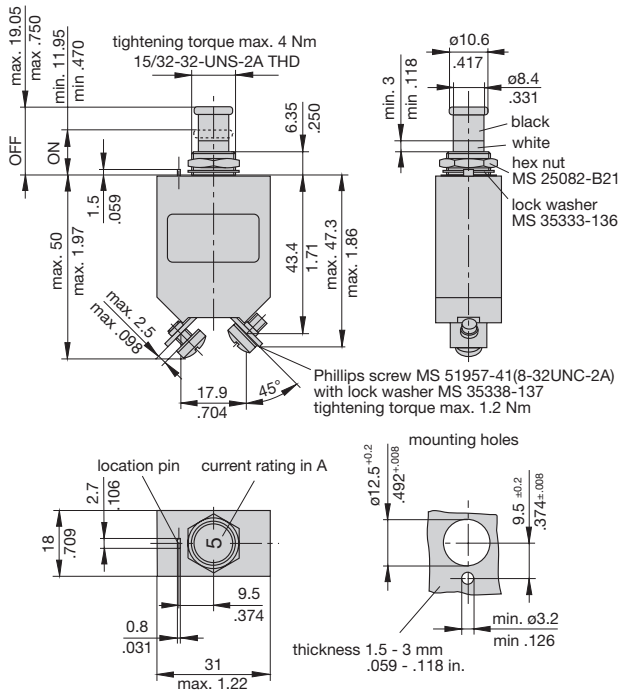
### 482-G700-R1M1-Z0S0



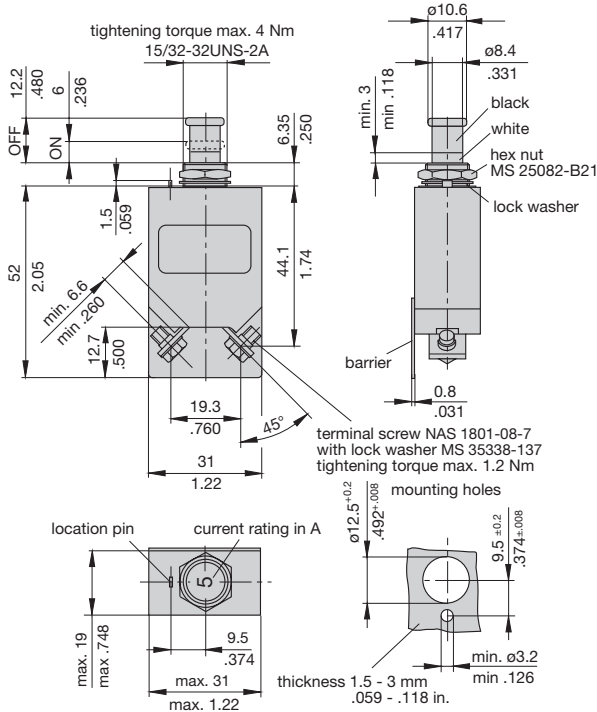
This is a metric design and millimeter dimensions take precedence (mm/inch)

## Dimensions 482-G3...

### 482-G323-J1M1-B2 (MS 25 244)

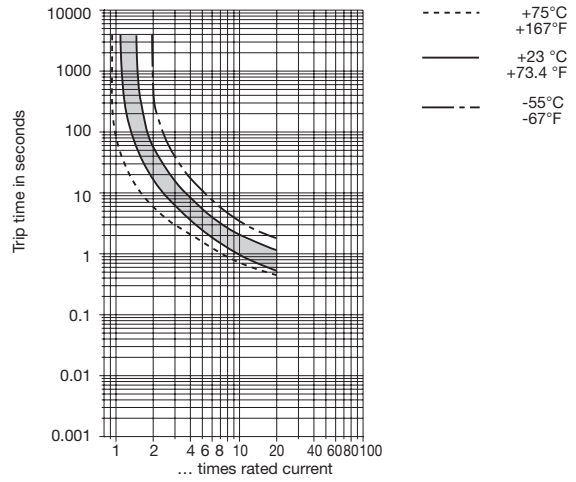


### 482-G323-J2..-E3S0T

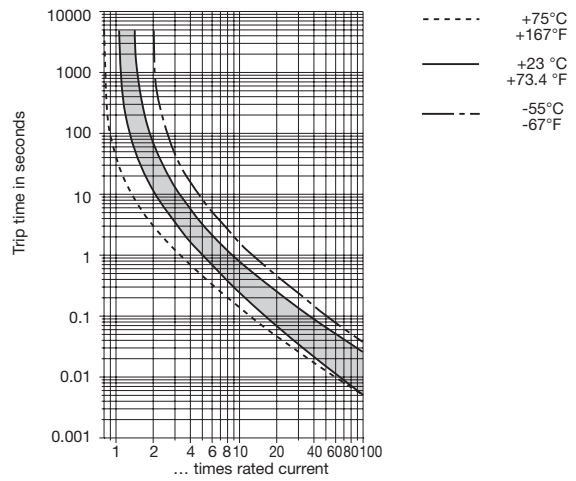


## Typical time/current characteristics

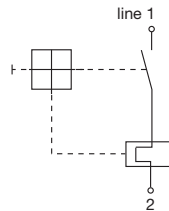
### 0.1...2.5 A



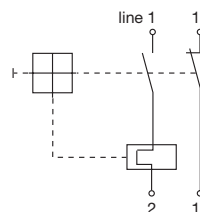
### 3...50 A



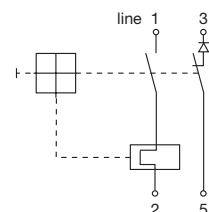
## Internal connection diagrams



### with auxiliary contact



### with polarized auxiliary contact



This is a metric design and millimeter dimensions take precedence ( $\frac{\text{mm}}{\text{inch}}$ )